



## **ABSTRACT**

[0093] Novel multi-planar rowing machine apparatus as well as exercise methods and protocols to enhance the ability of a rowing machine to provide a full body workout. The rowing machine apparatus of the present invention allows for the rowing motion to occur in multiple planes or stroke axes. The exercise protocols of the present invention provide efficient methods for using the rowing apparatus in decline and incline positions to maximize fitness gains. The apparatus and protocols of the present invention combine gravity and isokinetic resistance to provide full exercise spectrum including strength, muscle mass, and energy system stimulus to major body flexors and extensors. The two-phase resistance provided creates maximum calorie burn per unit of exercise time, and further results in a strength balance in virtually every major leg, arm, and body core extensor and flexor.